



Proposed Forest Health Hazard Warning

Eastern Okanogan and Ferry Counties

July 18, 2012

Summary

The Commissioner of Public Lands is proposing a “forest health hazard warning” under Washington State law for eastern Okanogan and Ferry counties.

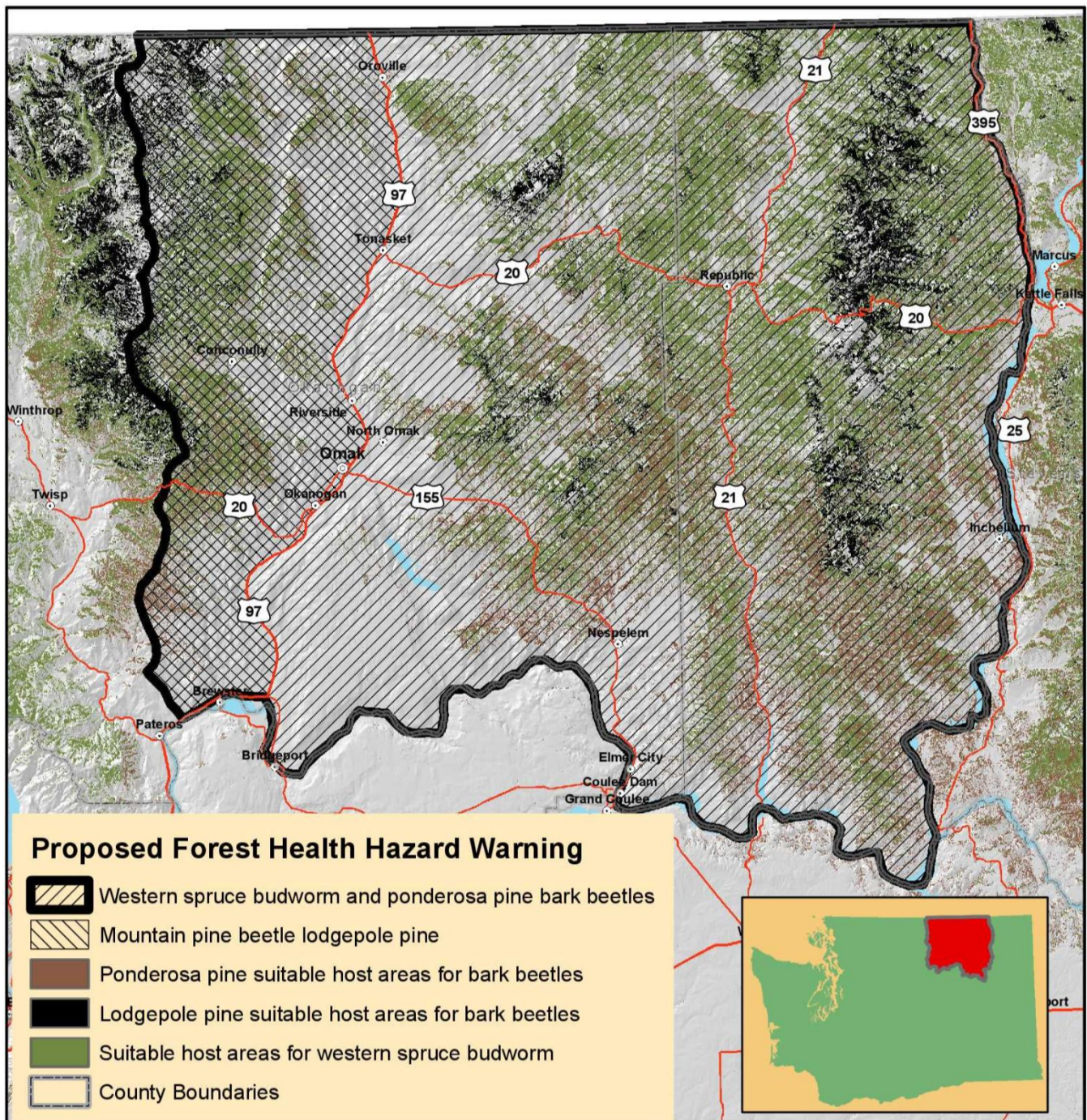
- The purpose of a warning is to call attention to deteriorating forest conditions and help coordinate timely actions to address the situation. All actions are voluntary on the part of the affected landowners and land managers.
- Three main types of forest damage would be the subject of the warning:
 - Western spruce budworm in Douglas-fir and grand fir
 - Bark beetles in ponderosa pine
 - Mountain pine beetle in lodgepole pine (mostly in the Loomis State Forest)
- These are native insects, but current forest conditions are ripe for severe and widespread damage from outbreaks. These same kinds of forest conditions can worsen wildfire hazards. Careful thinning and other forest management actions can reduce the hazard.
- The recommendation to establish a warning comes from a nine-member technical advisory committee that was convened in January and worked throughout the spring.
- Forest health concerns exist throughout eastern Washington, many of them severe. Yet, it is not possible or desirable to thin every last acre. Therefore, the committee prioritized top prospects for landscapes warranting focused action under state law. This included looking at current damage, projected future hazards, and the best potential for on-the-ground results.

Purpose of this Public Meeting

The purpose of this discussion is to provide more information about how DNR arrived at this proposal; to become more familiar with the insects and forest conditions that enable them to spread; and to provide feedback that will help make this project successful.

Questions We Have for You:

- Some funding is available for assistance and projects, but is limited. Are there specific places within the proposed warning area that should be the focus of our efforts?
- The forest conditions of concern are widespread. Are there specific actions we can take to help coordinate actions across larger areas?
- What are the most efficient and thoughtful ways we can encourage people to take action?



Data sources:

Suitable host area for WSBW created from a query of GNN layer mr1_spps200; downloaded from LEMMA. Query of GNN layer based on the following attributes:
 -FIR_BA_PCT >= 40% (ABGR, ABLA and PSME)
 -IMAP_LAYERS >=2
 -BAA_GE_3 >= 11.14 sq m (120 sq ft)

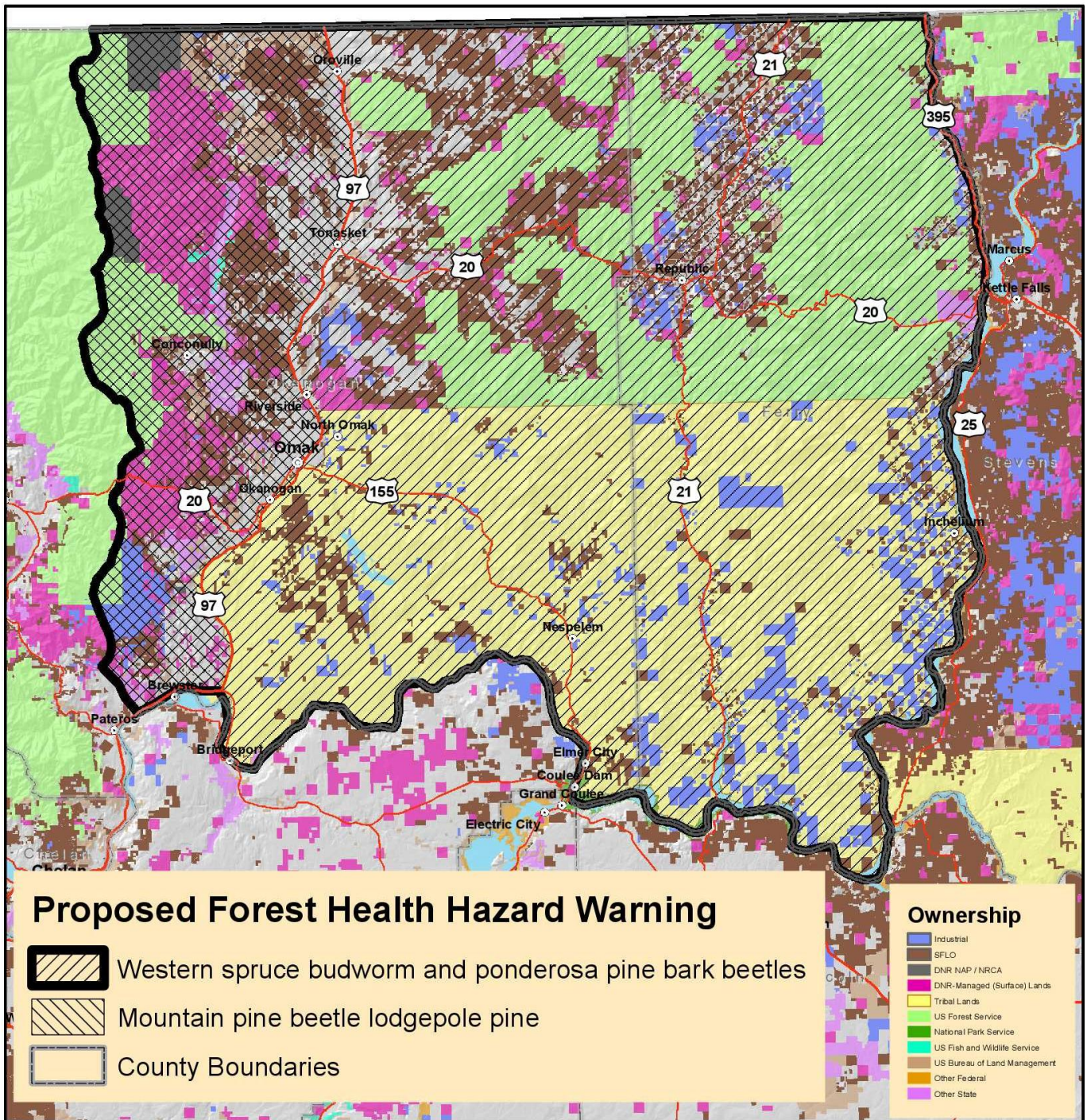
Suitable host area for pine bark beetles created from a query of GNN layer mr1_spps200; downloaded from LEMMA.
 -Lodgepole or ponderosa pine comprised 30% or more of total stand basal area.
 -Quadratic mean diameter of 8 inches or greater.
 -Total stand basal area of 120 square feet or greater.



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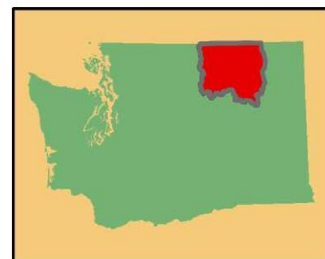
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 Miles

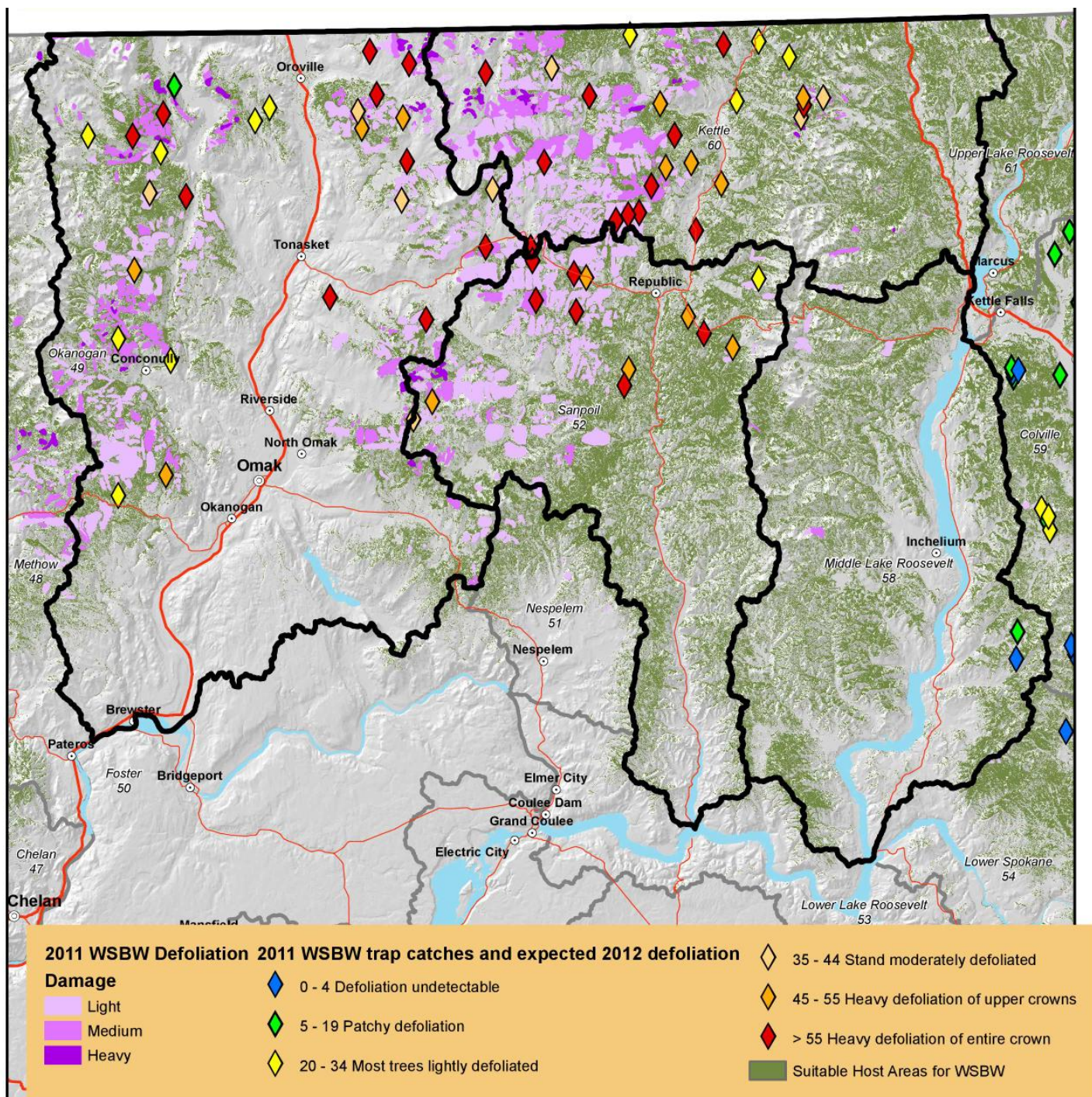




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0 2 4 8 12 16
 Miles





Data sources:
Defoliation: WA DNR and US Forest Service Forest Health Aerial Survey

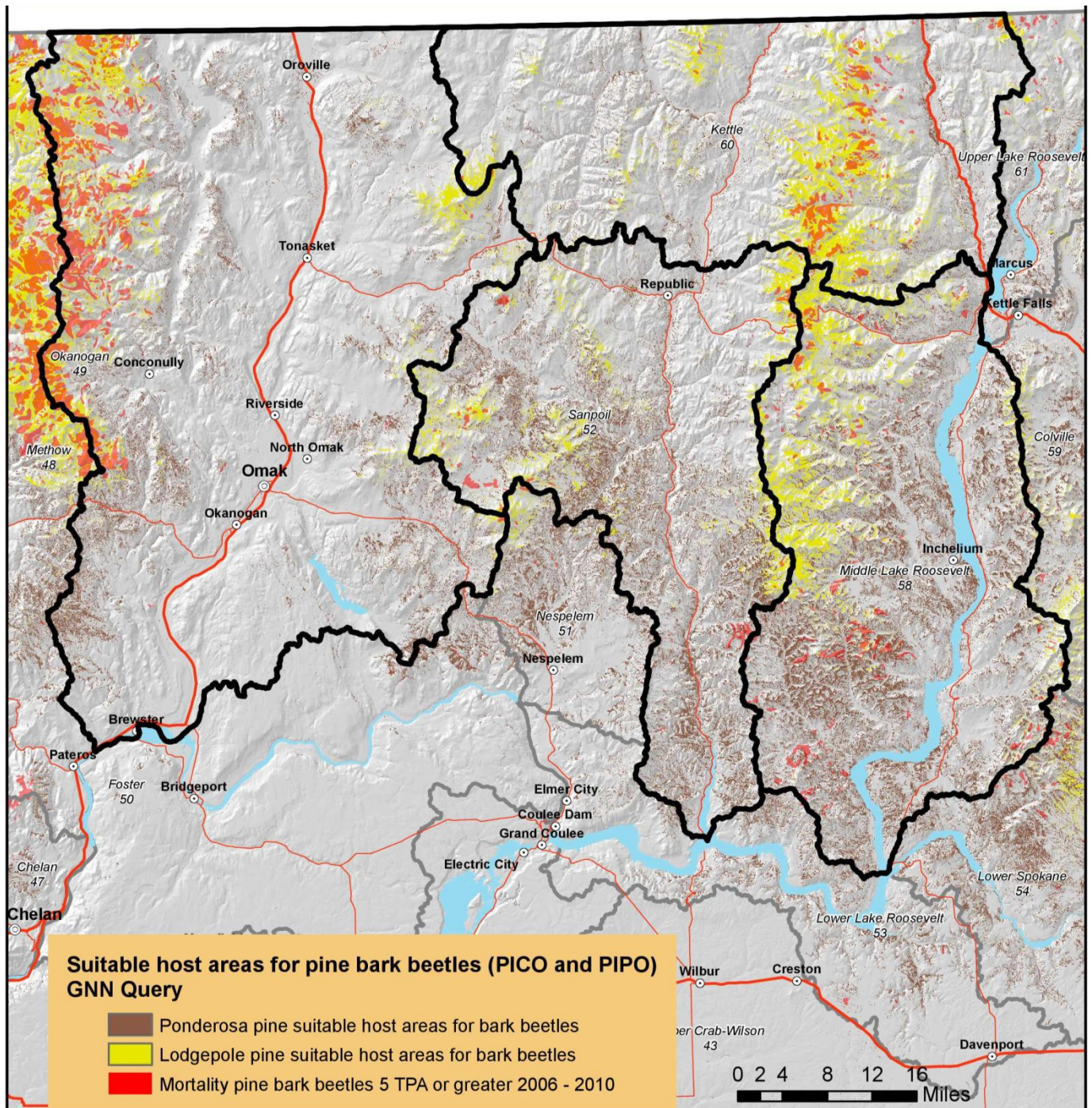
Western spruce budworm trap catches and expected 2012 defoliation:
WA DNR WSBW pheromone trap catch results for 2011.
2012 expected defoliation is based on 2011 trap counts.

Suitable host area for WSBW created from a query of
GNN layer mr1_sppsz00; downloaded from LEMMA.
Query of GNN layer based on the following attributes:
FIR_BA_PCT >= 40% (ABGR, ABLA and PSME)
IMAP_LAYERS >= 2
BAA_GE_3 >= 11.14 sq m (120 sq ft)



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Data sources:

GNN layer: mrt1_spsz00; downloaded from LEMMA.

Query of GNN layer based on the following attributes:

-Lodgepole pine or ponderosa pine comprised 30% or more the total stand basal area

-Quadratic mean diameter of 8 inches or greater

-Total stand basal area of 120 sq ft (11.14 sq m) or greater

SQL Query for Lodgepole pine: "PICO_PCT_BA" >=0.3 AND "IMAP_QMD" >=8 AND "BAA_GE_3" >=11.14

Layers developed based on query: sus_bb_pico; sus_bb_pipo

Mortality layer: MM_2006_2010_WRIA_5_trees_or_more_Pine_BB_7.shp

WA DNR and USFS Forest Health Aerial Survey

Areas that have 5 TPA or greater observed dead from pine bark beetles for the period 2006 to 2010



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Photos: Western Spruce Budworm (WSBW) and Pine bark beetles



Caterpillar (larvae) stage of WSBW eats new foliage
William M. Ciesla, Forest Health Management International, Bugwood.org



Adult mountain pine beetle
Ron Long, Simon Fraser University,
Bugwood.org



WSBW defoliated fir (preferred host) saplings next to undamaged ponderosa pine (non-host).



Pitch tubes on lodgepole pine from bark beetle attack.

Mark McGregor, USDA Forest Service, Bugwood.org



Close-up WSBW damage to tree's foliage



Lodgepole and ponderosa pine trees killed by mountain pine beetle.